

Specifications

Multi-Wavelength MHz Laser

The Contractor shall provide a wavelength-tunable, sub-megahertz-repetition-rate laser system to meet the specifications listed below:

1. A wavelength-tunable laser system which shall operate at > 250 kHz repetition rates.
2. The laser shall be continuously tunable between 210nm and 900nm.
3. The output line widths shall be less than 20cm^{-1} between 210nm and 500nm; between 500nm and 900nm the line width shall increase monotonically, but be less than 30cm^{-1} at 550nm and less than 100cm^{-1} at 800nm.
4. The laser shall tune to the requested wavelength within $<1/5^{\text{th}}$ of its line width.
5. The average output power shall be larger than 5 mW in the ultraviolet, and larger 50mW in the visible.
6. Beam pointing stability over the entire wavelength range shall be maintained to $< 50\text{urad/C}$
7. Beam profile shall be TEM00 with $M2 < 2$
8. Output pulse stability shall be $< 4\%$ rms over 1 minute.
9. Wavelength tuning shall be done automatically under computer control through a touch screen graphical user interface.
10. Ports and LabView drivers that enable control of the system via a user-supplied software program shall be provided.
11. The system components shall operate at 110V.
12. The laser system shall have a footprint smaller than 3'x5'.
13. Shipping shall be FOB Destination.
14. On-site installation and user training shall be provided.
15. Manuals shall be provided and include documentation of system performance at the user site. The laser system shall meet all specifications at the user's site.
16. The system shall include a 1 year product warranty from date of installation.